

ABSTRACT OF THE DISCLOSURE

To improve the shape of a gate electrode having SiGe, after patterning a gate electrode 15G having an SiGe layer 15b by a dry etching process, a plasma processing (postprocessing) is carried out in an atmosphere of an Ar/CHF₃ gas. Thereby, the gate electrode 15G can be formed without causing side etching at two side faces (SiGe layer 15b) of the gate electrode 15G.